Technology Fact Sheet for Mitigation

Technology	Description	Benefits	Challenges
Biofuels from sugarcane sweet [i]	This involves production of bioethanol sugarcane, sugar beet, sweet sorghum and other plants containing a large proportion of simple sugars. Production processes include grinding, fermentation, distillation and rectification. Production costs from sugarcane and sweet sorghum which in the region have been estimated under regional conditions to be 40 US$ cents/ litre. International production costs are estimated at 0.21- 0.42 US$ cents /litre. Land requirements for production of 20 million litres per annum is 5000 ha for sugar cane and sweet sorghum	Can easily be integrated into the existing transport infrastructure, thus avoiding the significant investment costs associated with other renewable options for the transport sector. Biofuels from sugarcane and sweet sorghum have been found to be competitive with fossil gasoline, when the international crude oil price is US$ 50/ barrel. Social, economic and environmental development opportunities include; job creation in the agriculture and forestry sectors, in industrial sector; increasing farm incomes; increasing energy security by producing and using biofuels locally, thus reducing the dependence on imported fossil oil; saving foreign currency by displacing fossil oil imports; earning foreign currency by producing biofuels for export; diversifying the industrial sector; GHG savings: most biofuels offer a net GHG savings compared to fossil fuels.	The benefits identified can be realised only if a comprehensive adequate policy framework is put in place.

[i] **This fact sheet has been extracted from TNA Report – Technology Needs Assessment and Technology Action Plans For Climate Change Mitigation– Zambia. You can access the complete report from the TNA project website http://tech-action.org/**